B2500-1

ISSN 0015-2757

ECONOMIC INDICATORS

Research Department, First Hawaiian Bank | September/October 1984

Regionalizing Hawaii's Economic Base

One aspect of the process of economic evolution being experienced by the Hawaiian economy that will be assuming greater importance in the years ahead is the spatial distribution of population and economic growth throughout the neighbor islands.

Currently, 78 percent of Hawaii's 1.0 million residents live on Oahu. According to projections by the Department of Planning and Economic Development (DPED), between 1980 and 2005, Oahu's share of total state population will drop to 73 percent, as the population of the neighbor islands rises to 27 percent. While the resident population of Oahu is projected to grow by 25 percent, Hawaii is projected to grow by 59 percent, Kauai by 84 percent, and Maui by 89 percent.

Likewise, by 2005, 26 percent of the civilian jobs in Hawaii will be on the neighbor islands, while 24 percent of the total income earned in the state will be earned by neighbor island residents. Aggregate growth in the labor force is projected to reach 78 percent compared to 27 percent for Honolulu between 1980 and 2005. The leading industry in this process of economic diffusion will be tourism. By 2005, Honolulu will account for 53 percent of the projected visitor census, while the neighbor islands account for 47 percent. However, the neighbor islands will account for 54 percent of projected hotel employment. At present, the neighbor islands already account for 41 percent of total existing hotel units in Hawaii and 60 percent of planned additional units. Recent announcements of large new resort developments in Hapuna and Waikoloa are giving a major boost to the establishment of West Hawaii as the next major Kaanapali-type resort region in the islands. The rapid development of the Poipu area in Kauai also promises to bring Kauai into the mainstream tourist market.

Another industry that will contribute to neighbor island growth will be agriculture. The neighbor islands already account for 94 percent of total acreage in agriculture, 75 percent of the total value of crop sales, and 60 percent of total jobs in agriculture. That will be expected to increase by 2005 as the neighbor islands account for 79 percent of total agricultural jobs. With the additional development of new industries such as aquaculture, alternate energy, astronomy, high technology manufacturing, and the simultaneous expansion of inter-island surface and air transportation, what is emerging are the beginning stages of an integrated economic network in which all the islands are becoming increasingly linked together into an overall regional economic system. One important implication of this process is that future discussions regarding the diversification of the Hawaiian economy cannot be separated from the issue of the spatial decentralization of Hawaii's economic base.

The spatial dispersion of development is often observed by regional economists in the process of economic growth. In the earlier phases of a region or nation's development, it is common for growth to be concentrated in the primary urban center compared to the surrounding regions due to the availability of industrial, transportation, and communications infrastructure, as well as proximity to markets. Labor will tend to migrate to the center in response to greater occupational opportunities, while capital will also tend to concentrate in the urban center due to greater investment opportunities, lower risk, and higher profitability. These factors, combined with government policies that favor the urban center in terms of educational, industrial, and infrastructure development, conspire to create an increasing disparity between the urban center and the poorer surrounding regions. As development proceeds, however, a reversal in the pattern of regional inequality develops. The poorer regions begin closing the development gap between themselves and the urbanized industrial areas through various forms of spread effects involving increasing market relations between regions, the expansion of investments in the lagging regions, and the development of secondary urban centers.

A major factor involving the reduction in interregional disparities, however, is the deliberate commitment by the public sector to mobilize resources through the regional allocation of public investments. In the case of Hawaii, an important aspect of this process will depend in large part on whether county governments can provide the kinds of resources necessary to plan and carry out economic development programs at the county level.

However, evidence indicates that county governments are now facing fiscal problems that may seriously compromise their ability to support future economic growth. For example, according to the Tax Review Commission, based on data from the U.S. Department of Commerce, growth in revenues and expenditures of counties in Hawaii both in total and on a per-capita basis between 1965 and 1981 were not only substantially lower than the U.S. average, but also for the five westernmost states of the country as well. In fact, Hawaii counties experienced a negative growth rate in per-capita expenditures during that period. Also, revenues to county governments in Hawaii are predominantly composed of property taxes (51 percent), grants from the state and federal government (23 percent), and other tax and non-tax sources (26 percent). According to the Tax Foundation of Hawaii, between 1973 and 1983, grants from the federal and state government to the counties have been falling as a percentage of revenues, while dependence on the counties' own property tax base has increased considerably. Under present federal and state revenue-sharing policies, this trend is likely to continue. This is compounded by the fact that counties face severe constraints on debt-financing, both in terms of their ability to finance long-term general-obligation debt, as well as their ability to access special purpose revenue bonds for industrial-development purposes.

If the counties are to support economic growth through the remainder of this century in the face of diminishing state and federal aid, and an increasing reliance on the property-tax base, then there will be a need for policies that allow a greater degree of fiscal autonomy and self-determination for the counties. However, neighbor-island constituencies themselves will also have to increasingly confront the fiscal and tax implications of economic development in terms of the resources that will be required to support future growth.

FIRST HAWAIIAN BANK
Established 1858 • Member of F.D.I.C.

u. s. economic indicators

Series	Unit	Period	Number	Percent Change from preceding period	Percent Change year ago
GENERAL BUSINESS INDICATORS					
COMPOSITE INDEX OF LEADING INDICATORS*	1967 = 100	July	166.3p	−0.8	4.5
GROSS NATIONAL PRODUCT**					
In Current Dollars	bil. $	2nd Qtr.	3,648.1	2.7	11.7
In 1972 Dollars	bil. $	2nd Qtr.	1,640.8	1.9	7.6
PERSONAL INCOME**	bil. $	July	3,027.0p	0.8	10.3
RETAIL SALES*	mil. $	July	107,807p	−0.9	9.1
BANKING AND CREDIT					
DEBITS TO DEMAND DEPOSITS**	bil. $	June	71,354	−1.3	13.0
BANK LOANS*	bil. $	July	1,235.6p	1.0	14.3
AVERAGE PRIME RATE CHARGED BY BANKS	percent	August	13.0	0.0	19.4
CONSUMER INSTALLMENT DEBT*	mil. $	June	430,131	1.9	18.6
CONSTRUCTION					
CONSTRUCTION PUT IN PLACE**	bil. $	June	310.6p	−0.2	17.6
CONSTRUCTION COST INDEXES					
Residences	1967 = 100	May	353.5	0.3r	5.1
Apts, Hotel, Office Bldgs	1967 = 100	May	359.6	0.8r	5.5
EMPLOYMENT					
CIVILIAN EMPLOYMENT*	thous.	July	105,385	−0.3	4.1
UNEMPLOYMENT*	thous.	July	8,543	5.1	−19.4
UNEMPLOYMENT RATE*	percent	July	7.4	5.7	−20.4
PRICES					
CONSUMER PRICE INDEX (All Items)					
Urban Wage Earners and Clerical Workers (Revised)	1967 = 100	August	310.3	0.9	3.6
All Urban Consumers	1967 = 100	August	313.0	0.4	4.2
PRODUCER PRICE INDEXES					
Finished Goods*	1967 = 100	July	292.2	0.3	2.5
All Commodities	1967 = 100	June	311.4	−0.1	3.0

p = preliminary. r = Compared to March, 1984.

*Seasonally adjusted.
**Seasonally adjusted at annual rates.

Sources:
General Business Indicators—U.S. Department of Commerce.
Banking and Credit—Board of Governors of the Federal Reserve System.
Construction—U.S. Department of Commerce, The American Appraisal Company.
Employment and Prices—U.S. Department of Labor, Bureau of Labor Statistics.

business activity in hawaii

TOURISM					
OVERNIGHT OR LONGER VISITORS	number	July	429,350	−2.5	4.4
	number	Jan.-July	2,864,630	....	12.2
Westbound	number	July	328,200	−2.5	−0.2
	number	Jan.-July	2,210,565	....	10.4
Eastbound	number	July	101,150	−2.6	22.8
	number	Jan.-July	654,065	....	18.9
AVERAGE DAILY VISITOR CENSUS	number	198r	97,395	....	2.8
AVERAGE LENGTH OF STAY	no. of days	198r	10.5	....	0.0
MEETINGS ATTENDANCE	number	July	10,877	−31.3	−54.8
ORGANIZED GROUP TOURS	number	July	71,370	−9.9	0.1
NEIGHBOR ISLAND VISITORS					
Maui	number	July	163,670	−4.3	−0.7
	number	Jan.-July	1,118,740	....	11.9
Hawaii	number	July	66,110	−5.4	−6.1
	number	Jan.-July	458,295	....	4.8
Kauai	number	July	70,230	−10.1	−6.1
	number	Jan.-July	475,580	....	16.2
VISITOR ACCOMMODATIONS					
STATE	number	February	62,446	3.7	6.3
Oahu	number	February	35,848	3.0	7.3
Waikiki	number	February	32,239	1.2	7.1
Maui (includes 11 on Lanai)	number	February	13,138	4.4	3.1
Molokai	number	February	627	0.2	−0.2
Hawaii	number	February	7,149	−1.3	−4.3
Kauai	number	February	5,313	15.3	26.7
HOTEL OCCUPANCY					
STATE	percent	July	75.1	−3.5	2.0

n.a. = not available.
r Estimated Westbound.

TABLE OF CONTENTS

Regionalizing Hawaii's Economic Base 1
Current Business Trends 2
U.S. Economic Indicators 2
Business Activity in Hawaii 2
Air Travel in Hawaii 4
Population and Personal Income in Hawaii .. 5
Employment and Unemployment in Hawaii . 6
Public Assistance in Hawaii 7
Banking and Finance in Hawaii 7
Prospects for an Inter-Island Power Cable 8

CURRENT BUSINESS TRENDS

Hawaii's economy reported modest improvement this month. While growth was not as dramatic as seen in previous months, the trend was, nonetheless, in a positive direction.

The July visitor count reported a very moderate 4.4 percent growth over the previous year. Total arrivals increased from 411,100 to 429,350. This brought the cumulative tourist count up to 2,864,630, an impressive 12.2 percent gain over the 2,552,150 travelers arriving during the first seven months of last year. During July, westbound visitors dropped 0.2 percent over the year, while eastbound visitors increased an impressive 22.8 percent. The Hawaii Visitors Bureau attributed the decline in westbound traffic to increased competition from the Olympics, foreign countries with favorable U.S. dollar exchange rates, and the recent demise of two low-cost airlines.

The military showed increased spending during the second quarter. During the first quarter of 1984, defense expenditures were slightly below the same period in 1983, but second-quarter appropriations were 6.9 percent ahead of 1983.

Sugar production so far this year is running an impressive 7.2 percent ahead of 1983. Production during the January-July period weighed in at 649,100 tons compared to 605,600 in 1983. However, the Hawaii Sugar Planters Association expects revenues to be down this year. Increased quotas on foreign sugar, expanded sales of alternate sweeteners, and increased sugar beet production all combined to create an oversupply of sugar in Hawaii's primary market. This in turn has led to a decrease in sugar prices, and therefore a reduction in the outlook for sugar revenues.

The pineapple industry, both the fresh and processed sectors, reported healthy growth during the first half of this year. The value of canned pineapple was up 38.8 percent, from $73.0 million to $101.4 million when the first six months of 1983 and 1984 are compared. During the same period, fresh pineapple shipments were 10.2 percent higher, going from 121 million pounds to 133 million pounds.

Most diversified agricultural crops are enjoying a good year. In some respects, papayas are the front-runners: production for the January-July period was 51.3 percent ahead of the same period in 1983, growing from 25.1 million pounds in 1983 to 38.0 million pounds in 1984. Unfortunately, the current papaya glut drove July's papaya

business activity in hawaii [cont.]

Series	Unit	Period	Number	Percent Change from preceding period	Percent Change year ago
HOTEL OCCUPANCY (continued)					
Oahu	percent	July	81.2	−4.9	0.3
Maui	percent	July	78.7	1.0	7.0
Hawaii	percent	July	53.8	7.2	13.4
Kauai	percent	July	58.0	−12.8	−9.4
DEFENSE EXPENDITURES					
APPROPRIATED FUNDS TOTAL	mil. $	2nd Qtr.	504.1	5.8	6.9
Military Payroll	mil. $	2nd Qtr.	204.8	2.4	9.1
Civilian Payroll	mil. $	2nd Qtr.	186.3	36.6	29.9
Local Purchases	mil. $	2nd Qtr.	113.1	−19.4	−19.4
SUGAR					
SUGAR PRODUCTION	thous. tons	Jan.-July	649.1	.....	7.2
N. Y. RAW SUGAR PRICE	$/ton	July	438.1	−0.7	−1.0
PINEAPPLE SHIPMENTS					
CANNED	mil. $	Jan.-June	101.4	.....	38.8
FRESH	thous. lbs.	Jan.-June	132,908	.....	10.2
DIVERSIFIED AGRICULTURE					
CROPS					
Flowers & Nursery Products (wholesale)	thous. $	1983	36,165	.....	18.2
Anthurium Outshipments	th. dozens	Jan.-July	969.3	.....	12.0
Potted Foliage[2]	thous. $	1983	10,836	.....	22.9
Other[3]	thous. $	1983	19,294	.....	19.8
Fruits & Nuts	thous. $	1983	38,521	.....	−8.2
Papaya Sales	th. lbs.	Jan.-July	37,960	.....	51.3
Average Farm Price	cents/lb.	July	13.0	−13.3	−37.2
Macadamia Nut Sales (in shell)	th. lbs.	1983	38,160	.....	3.9
Average Farm Price	cents/lb.	1983	68.0	.....	−8.0
Other[3]	thous. $	1983	3,002	.....	−10.7
Vegetable and Melon Production[4]	th. lbs.	Jan.-July	41,629	14.7	2.8
Other Crop Sales[5]	thous. $	1983	11,936	.....	41.2
LIVESTOCK					
Beef Production (dressed wt.)	th. lbs.	Jan.-July	18,502	.....	0.9
Average Farm Price (feedlot beef)	cents/lb.	July	94.5	0.0	−7.8
Hog Production (dressed wt.)	th. lbs.	Jan.-July	3,532	.....	0.9
Average Farm Price	cents/lb.	July	104.5	2.0	2.0
Milk Production	mil. lbs.	Jan.-July	90.1	.....	2.3
Average Price Sold to Plants	$/100 lbs.	July	18.70	−5.6	0.8
Egg Production	mil.	Jan.-July	124.2	.....	8.3
Average Farm Price	cents/doz.	July	90.0	−2.2	5.9
Other Livestock Sales[6]	thous. $	1983	6,420	.....	9.3
CONSTRUCTION					
CONSTRUCTION PUT IN PLACE	mil. $	Jan.-June	697.1	.....	2.8
PRIVATE PERMITS AUTHORIZED					
RESIDENTIAL					
STATE	thous. $	Jan.-July	220,301	.....	6.9
C&C of Honolulu	thous. $	Jan.-July	137,973	.....	26.0
Maui County	thous. $	Jan.-July	25,699	.....	6.4
Hawaii County	thous. $	Jan.-July	31,508	.....	4.1
Kauai County	thous. $	Jan.-July	25,122	.....	−40.4
SINGLE FAMILY UNITS					
STATE	number	Jan.-July	2,504	.....	19.0
C&C of Honolulu	number	Jan.-July	1,372	.....	22.1
Maui County	number	Jan.-July	376	.....	15.0
Hawaii County	number	Jan.-July	553	.....	8.4
Kauai County	number	Jan.-July	203	.....	41.0
MULTIPLE FAMILY UNITS					
STATE	number	Jan.-July	582	.....	44.4
C&C of Honolulu	number	Jan.-July	484	.....	51.7
Maui County	number	Jan.-July	2	.....	−90.0
Hawaii County	number	Jan.-July	57	.....	11.8
Kauai County	number	Jan.-July	39	.....	200.0
NONRESIDENTIAL					
STATE	thous. $	Jan.-July	125,631	.....	−4.1
C&C of Honolulu	thous. $	Jan.-July	85,516	.....	6.0
Maui County	thous. $	Jan.-July	9,743	.....	4.5
Hawaii County	thous. $	Jan.-July	19,560	.....	−4.2
Kauai County	thous. $	Jan.-July	8,891	.....	−56.7
PUBLIC CONTRACTS AWARDED					
TOTAL GOVERNMENT PROJECTS	thous. $	Jan.-Aug.	224,325	.....	32.0

*Coast Guard figures not included.
[2]Gross taxable income valued at time of shipment.
[2]Potted foliage grown for indoor or patio use.
[3]Includes cut flowers, cut orchids, lei flowers, cut foliage, other potted plants, unfinished flower and foliage stock, and other nursery products.
[4]Includes avocadoes, bananas, guavas, oranges, passion fruit, and tangerines.
[5]Includes snap beans, cabbage, celery, sweet corn, cucumbers, lettuce, onions, green peppers, tomatoes, and watermelons.
[6]Includes coffee, taro, feed and forage crops, and forest products.
[6]Includes broilers and chickens, turkeys, sheep, wool, horses, honey, and beeswax.

prices down by 37.2 percent over the year, from 20.7 cents per pound to 13.0 cents per pound. While it is a banner year in terms of production, it is a grim year financially. For the first seven months of the year, farm income was down 32.1 percent from $11.1 million to $8.4 million, in spite of the huge gain in production.

Business activity has shown exceptional growth this year. During June, gross business receipts totalled $2.2 billion, representing the third time this year that sales activity surpassed the $2 billion mark. June's data was a remarkable 46.9 percent above the same month in 1983. Business transactions for the first half of 1984 totalled $12.3 billion, representing a 15.9 percent gain over the $107 billion reported for the same time span in 1983.

The growth in business has expanded the tax base. As a result, tax collections have also shown strong gains in 1984. The cumulative figures indicate that the first seven months of 1984 are 13.3 percent ahead of the same period in 1983. Tax collections increased from $709 million to $803 million.

Unfortunately, the economic growth has yet to be translated into more jobs. Hawaii's overall job count showed no change between July of 1983 and 1984, remaining constant at 451,300. This apparent stability, however, masks a number of counteracting shifts in the labor force. The largest over-the-year gains were seen in areas related to the visitor industry: hotel service jobs in the state expanded by 1,200; other service jobs in the state grew by 1,400; and retail trade jobs increased by 2,500. On the other hand, both the sugar and pineapple industries experienced substantial declines in jobs. To remain financially viable in the face of increasing competition, plantations have had to mechanize, consolidate, and cut back on personnel.

The over-the-month changes also reflect the usual seasonal patterns found in Hawaii's work force. The service sector increased by almost 900 jobs between June and July, largely due to gains in hotel, recreational, and personal services as a result of the increased visitor traffic. The retail trade sector added 700 new jobs. However, most of these were temporary, as large department stores prepared for summer sales. Macadamia nut processing and tuna packing also reported seasonal gains, increasing the manufacturing job count by 600. Local government jobs jumped by 2,800 over-the-month in response to summer youth-employment programs. State government, on the other hand, decreased by 3,600 jobs as the temporary and casual hires were dropped from the educational institution payrolls.

July was one of the few months where construction jobs increased. However, this increase certainly will not be sustained in view of the concrete workers' and electrical workers' strike which began on July 18th, and September 10th, respectively. According to a Department of Labor survey done in mid-September, 1,200 workers filed for unemployment insurance. This included 300 workers on strike or locked-out, and 900

business activity in hawaii [cont.]

Series	Unit	Period	Number	Percent Change from preceding period	Percent Change year ago
PUBLIC CONTRACTS AWARDED (continued)					
BY LEVEL OF GOVERNMENT					
FEDERAL	thous. $	Jan.-Aug.	46,372	.....	59.1
STATE	thous. $	Jan.-Aug.	134,028	.....	45.8
COUNTY	thous. $	Jan.-Aug.	43,926	.....	−10.2
BY LOCATION OF PROJECT					
C&C of Honolulu	thous. $	Jan.-Aug.	157,935	.....	24.4
Maui County	thous. $	Jan.-Aug.	16,754	.....	−30.5
Hawaii County	thous. $	Jan.-Aug.	15,902	.....	14.8
Kauai County	thous. $	Jan.-Aug.	33,735	.....	563.6
HONOLULU CONSTRUCTION COST INDEXES					
SINGLE FAMILY	1967 = 100	August	348.2	0.1	3.6
HIGH-RISE	1967 = 100	August	367.0	0.1	3.8
REAL ESTATE					
OAHU: New Sales					
Single Family	number	Jan.-July	897	.....	34.5
Condominium	number	Jan.-July	1,176	.....	−22.7
Resales					
Single Family	number	Jan.-July	935	.....	−5.6
Average Price	dollars	Jan.-July	191,860	.....	4.4
Condominium	number	Jan.-July	1,279	.....	1.8
Average Price	dollars	Jan.-July	101,903	.....	−1.1
MAUI: Resales					
Single Family	number	Jan.-July	123	.....	7.0
Average Price	dollars	Jan.-July	170,992	.....	2.9
Condominium	number	Jan.-July	252	.....	0.4
Average Price	dollars	Jan.-July	141,851	.....	−7.3
HAWAII: Resales					
Single Family	number	Jan.-July	186	.....	−17.7
Average Price	dollars	Jan.-July	89,125	.....	−7.8
Condominium	number	Jan.-July	67	.....	4.7
Average Price	dollars	Jan.-July	89,605	.....	−22.9
KAUAI: Resales					
Single Family	number	Jan.-July	44	.....	41.9
Average Price	dollars	Jan.-July	147,030	.....	18.2
Condominium	number	Jan.-July	27	.....	125.0
Average Price	dollars	Jan.-July	131,848	.....	−20.7
BUSINESS SALES					
GROSS BUSINESS RECEIPTS	mil. $	Jan.-June	12,349	.....	15.9
DIVERSIFIED MANUFACTURING	mil. $	Jan.-June	279.6	.....	19.0
DIVERSIFIED AGRICULTURE	mil. $	Jan.-June	129.4	.....	14.4
RETAILING	mil. $	Jan.-June	4,353	.....	13.5
WHOLESALING	mil. $	Jan.-June	3,171	.....	20.7
SERVICES	mil. $	Jan.-June	2,857	.....	17.6
OAHU NEW CAR SALES	number	July	2,358	−46.4	−15.3
PUBLIC UTILITIES					
ELECTRICITY GENERATED	mil. kwh.	July	597.3	3.3	2.6
GAS SALES	th. therms.	July	4,005	−2.2	1.4
TELEPHONE LINES IN SERVICE	thous.	July	467.2	0.2	3.7
HONOLULU PRICES					
HONOLULU CONSUMER PRICE INDEX					
Urban Wage Earners and Clerical Workers (Revised), All Items	1967 = 100	August	293.6	0.9*	5.5
All Urban Consumers, All Items	1967 = 100	August	286.0	0.5*	4.6

*Compared to June, 1984.

Sources:

Tourism—Hawaii Visitors Bureau. Pannell, Kerr, Forster.

Defense—Reports from various branches of the armed forces.

Sugar—Hawaiian Sugar Planters' Association.

Pineapple—Hawaii State Department of Taxation. Hawaii State Department of Agriculture.

Diversified Agriculture—Hawaii State Department of Agriculture.

Construction—Hawaii State Department of Taxation. Honolulu County Building Department. Hawaii, Kauai, and Maui County departments of public works.

Real Estate—Monitor Hawaii, Inc. Locations Inc., First Hawaiian Bank, Research Department.

Business Sales—Hawaii State Department of Taxation. Cardinal Mailing Services, Ltd.

Public Utilities—Hawaiian Electric Company, Inc. Citizens Utilities Company. Molokai Electric Co., Ltd. Gasco, Inc. Hawaiian Telephone Company.

Honolulu Prices—U.S. Department of Labor, Bureau of Labor Statistics.

others laid off because of the strike/lockout. This would represent a 9 percent drop in the overall construction job count.

AIR TRAVEL IN HAWAII

The economy of each of Hawaii's counties is greatly dependent on the health of the air travel industry, which serves as the lifeline for the visitor industry and as an essential bridge linking the various islands into a total state economy. With the advent of sweeping changes affecting the airlines, Hawaii's air transportation industry has entered a new era of heightened competition, expanded service, and shifting travel patterns.

Perhaps the event that has most transformed air transportation in recent years is the passage by Congress of the Airline Deregulation Act of 1978. This Act greatly loosened air carrier operations from federal control, allowing airlines to establish new routes, end unprofitable ones, raise or lower fares, and make other changes that formerly required governmental approval. The Act also set January 1, 1985 as the termination date for the airline regulatory agency, the Civil Aeronautics Board.

Since 1978, Hawaii's air travel patterns have seen many changes, much of it due to the new free market environment. In interisland travel, Mid Pacific Air started operations in 1981, and quickly established itself as a serious competitor to the long-time carriers, Hawaiian and Aloha Airlines. In 1983, Mid Pacific achieved a 20 percent market share, attributable to its aggressive marketing, low fares, and convenient location for Mainland tourists visiting the Neighbor Islands in the Honolulu International Airport (HIA) main terminal.

However, Mid Pacific lost its locational advantage in its recent move into the interisland terminal. Also, to meet the challenge of Mid Pacific's nonunion operations, both Aloha and Hawaiian trimmed their personnel rolls and negotiated tough wage and benefit concessions from their unions. Ticket prices were cut, and promotional efforts stepped up. Following Mid Pacific's lead, Hawaiian placed into service its own economical turboprop planes. Last year, Aloha and Hawaiian enjoyed a windfall from a 1983 U.S. Supreme Court decision exempting intra-state airline revenues from the 4-percent Hawaii Public Service Company tax, an action which resulted in proportionally larger savings for their companies than for Mid Pacific. In a bold move, Aloha and Hawaiian also began to extend their service boundaries beyond the state. Aloha initiated service to Guam, Taipei, and other destinations in the Pacific Basin, while Hawaiian

RESEARCH DEPARTMENT
OFFICE OF THE CORPORATE SECRETARY

DR. GREGORY G. Y. PAI	Assistant Vice-President Research Supervisor
NORMA J. YUSKOS	Research Assistant
IVAN A. KAISAN	Research Assistant
MARY I. KURAMOTO	Research Officer, Librarian
WENDY F. HIRAYAMA	Secretary

FIRST
Established 1858 • Member of

population and personal income in hawaii

Series	Unit	Period	Number	Percent Change from preceding period	Percent Change year ago
POPULATION					
DE FACTO—STATE	thous.	July 1, 1983	1,119	.....	2.9
TOTAL RESIDENT—STATE	thous.	July 1, 1983	1,023	.....	2.7
C&C of Honolulu	thous.	July 1, 1983	797	.....	2.6
Maui County	thous.	July 1, 1983	83	.....	3.4
Hawaii County	thous.	July 1, 1983	101	.....	3.3
Kauai County	thous.	July 1, 1983	42	.....	2.0
CIVILIAN RESIDENT—STATE	thous.	July 1, 1983	964	.....	2.4
MILITARY PERSONNEL—STATE	number	July 1, 1983	59,021	.....	−3.4
Ashore	number	July 1, 1983	53,755	.....	−0.8
Afloat	number	July 1, 1983	5,266	.....	−23.9
CIVILIAN DEPENDENTS OF MILITARY	number	July 1, 1983	66,252	.....	−0.7
FOREIGN IMMIGRATION[1]	number	12 mo. total for period ending 8/84	5,285	−1.9	−0.1
PERSONAL INCOME					
TOTAL PERSONAL INCOME**	mil. $	1st Qtr., 1984	12,911	2.1	6.0
Employment Income[2]	mil. $	1st Qtr., 1984	9,490	1.9	5.0
Manufacturing	mil. $	1st Qtr., 1984	473	4.0	4.4
Construction & Mining[3]	mil. $	1st Qtr., 1984	547	−3.0	−2.5
Wholesale	mil. $	1st Qtr., 1984	404	2.3	6.6
Retail	mil. $	1st Qtr., 1984	1,068	1.3	6.9
Finance, Ins. & Real Estate	mil. $	1st Qtr., 1984	616	1.7	5.1
Trans., Comm., & Util.	mil. $	1st Qtr., 1984	772	2.4	−2.3
Services	mil. $	1st Qtr., 1984	2,117	1.2	11.0
Farm & Other	mil. $	1st Qtr., 1984	352	0.9	3.6
Federal Civilian	mil. $	1st Qtr., 1984	856	1.2	1.3
Federal Military	mil. $	1st Qtr., 1984	1,166	5.4	7.2
State & Local	mil. $	1st Qtr., 1984	1,117	2.2	2.9
Property Income (Dividends, Interest, Rent)	mil. $	1st Qtr., 1984	2,330	3.6	10.3
Transfer Payments (1,697) minus Personal Contributions For Social Ins. (585)	mil. $	1st Qtr., 1984	1,092	0.4	6.4
PER CAPITA PERSONAL INCOME					
STATE PER CAPITA	dollars	1982	11,614	.....	5.2
PER CAPITA BY COUNTY					
C&C of Honolulu	dollars	1982	12,130	.....	5.3
Maui County	dollars	1982	10,458	.....	7.1
Hawaii County	dollars	1982	9,148	.....	2.2
Kauai County	dollars	1982	9,869	.....	5.8

***Total personal income and all components are seasonally adjusted at annual rates.*

[1]These immigration statistics include only those entering Honolulu ports and do not include status changes.

[2]Includes wage and salary disbursements, proprietors' income, and other labor income.

[3]Income from mining not shown separately to avoid disclosure of confidential information.

Sources:

Population—Hawaii State Department of Planning and Economic Development. U.S. Bureau of the Census. U.S. Immigration and Naturalization Service.

Personal Income—U.S. Department of Commerce, Bureau of Economic Analysis.

began charter service to the Mainland and several European countries.

Hawaii's overseas air travel market has also experienced profound changes since deregulation in 1978. For the time being, air fares have stabilized after years of upward movement, reflecting the moderation in fuel prices and growing airline competition. For example, the one-way, regular weekend coach fare from San Francisco to Honolulu was $144 on June 1, 1978, and rose to $353 by June of this year. After inflation is taken into account, however, the 1982 fare actually rose to just $222 in constant 1978 dollars, where it remained this June. As a percentage of real per capita disposable incomes, the San Francisco-Hawaii fare rose from 2.1 percent to 3.1 percent between 1978 and 1982, and fell to 2.9 percent of per capita income as of this past June. If fuel prices continue to remain stable as real incomes rise, the cost of flying to Hawaii for Mainland vacationers will continue to be quite attractive.

Airline deregulation has also affected Hawaii's air travel market in other ways. Capitalizing on the opportunities brought by deregulation, overseas carriers have started new direct flights from the Mainland to the Neighbor Islands: to Keahole, Kona in September, 1983; to Kahului, Maui in January, 1984; and now to Lihue, Kauai this past August. While HIA's overseas passenger loads have remained flat in recent years, the new flights doubled the number of Neighbor Island overseas passengers in 1983.

For many years, the only alternative gateway to the Mainland outside of Honolulu was General Lyman Field in Hilo. This airport has slipped steadily in overseas passenger volume after peaking at 341,629 passengers in 1969, just two years after its inaugural direct flight in 1967. Last year, Kahului Airport overtook General Lyman Field to become the state's second largest gateway for overseas travelers.

The new direct Mainland flights have also brought new routes for overseas air cargo to and from the Neighbor Islands. Prior to 1982, overseas air cargo to the Neighbor Islands had to be routed either through Honolulu or through Hilo. Since 1982, however, new overseas air cargo lanes have been opened to Kona, Maui, and Kauai. In just two years, direct overseas air cargo loads to and from Kona and Maui have grown from virtually zero to 631 tons of cargo in 1983, and loads for the first 6 months of this year are already at 724 tons. With the addition of Mainland flights to Lihue, the new routes will bring faster service and greater capacity between overseas markets and expanding diversified agriculture and manufacturing enterprises on each of the Neighbor Islands.

Given the inherent diversity of the

HAWAIIAN BANK
F.D.I.C.

ECONOMIC INDICATORS is a bimonthly publication of the Research Department of First Hawaiian Bank. Replication or quotation of materials is permitted with appropriate source designations. References used for the statistics in the various series are listed in the footnotes. While efforts have been expended to insure accuracy, statistical reliability will depend on the sources used. For a free subscription, write to: Research Department, First Hawaiian Bank; P.O. Box 3200; Honolulu, Hawaii; 96847.

employment and unemployment in hawaii

Series	Unit	Period	Number	Percent Change from preceding period	Percent Change year ago
EMPLOYMENT IN STATE AND COUNTIES (number of persons)					
STATE					
Civilian Labor Force	thous.	July	484.1p	0.2	0.9
Employment	thous.	July	454.7p	0.2	1.2
Unemployment	thous.	July	29.3p	−0.7	−4.2
Unemployment Rate	percent	July	6.1p	0.0	−4.7
C & C OF HONOLULU					
Civilian Labor Force	thous.	July	389.1p	0.1	1.0
Employment	thous.	July	349.0p	0.0	1.3
Unemployment	thous.	July	20.1p	0.5	−2.9
Unemployment Rate	percent	July	5.5p	1.9	−3.5
MAUI COUNTY					
Civilian Labor Force	thous.	July	45.1p	0.4	1.3
Employment	thous.	July	41.9p	0.5	1.9
Unemployment	thous.	July	3.1p	0.0	−8.8
Unemployment Rate	percent	July	6.9p	−1.4	−10.4
HAWAII COUNTY					
Civilian Labor Force	thous.	July	47.7p	0.8	0.2
Employment	thous.	July	43.5p	1.9	1.4
Unemployment	thous.	July	4.3p	−6.5	−8.5
Unemployment Rate	percent	July	8.9p	−8.2	−9.2
KAUAI COUNTY					
Civilian Labor Force	thous.	July	22.1p	0.0	−1.8
Employment	thous.	July	20.3p	−1.0	−2.9
Unemployment	thous.	July	1.8p	5.9	5.9
Unemployment Rate	percent	July	8.1p	3.8	5.2
JOB COUNT BY INDUSTRY					
TOTAL JOBS—STATE	thous.	July	451.3p	0.4	0.0
SUGAR (mill and field)	thous.	July	8.3p	0.0	−2.4
PINEAPPLE (cannery and field)	thous.	July	6.3p	1.6	−16.0
DIVERSIFIED MANUFACTURING (excluding sugar and pineapple)	thous.	July	16.4p	3.8	3.1
Durable Goods	thous.	July	3.7p	2.8	0.0
Non-Durable Goods	thous.	July	12.7p	5.0	3.3
Apparel and Textiles	thous.	July	2.9p	0.0	0.0
DIVERSIFIED AGRICULTURE (excluding sugar and pineapple, but including agricultural self-employed)	thous.	July	8.3p	3.8	−3.5
CONTRACT CONSTRUCTION	thous.	July	16.9p	1.2	−5.6
TRANSPORTATION	thous.	July	21.1p	0.0	1.4
COMMUNICATION	thous.	July	7.3p	0.0	−2.7
UTILITIES	thous.	July	2.5p	0.0	0.0
RETAIL TRADE	thous.	July	90.6p	0.8	2.8
WHOLESALE TRADE	thous.	July	18.5p	1.1	1.1
FINANCE, INSURANCE AND REAL ESTATE	thous.	July	31.1p	0.0	−2.2
HOTEL SERVICES—STATE	thous.	July	27.9p	0.7	4.5
Honolulu County	thous.	July	15.9p	1.3	6.7
Maui County	thous.	July	6.2p	1.6	5.1
Hawaii County	thous.	July	3.5p	0.0	0.0
Kauai County	thous.	July	2.3p	0.0	0.0
OTHER SERVICES	thous.	July	78.7p	0.8	1.8
FEDERAL GOVERNMENT	thous.	July	31.9p	−0.6	−1.2
Civilian Agencies	thous.	July	11.3p	0.0	0.0
Defense Department	thous.	July	20.7p	0.0	−1.4
STATE GOVERNMENT	thous.	July	42.7p	−7.8	1.4
COUNTY GOVERNMENT	thous.	July	15.5p	22.0	−7.7
UNEMPLOYMENT INSURANCE CLAIMS AND PAYMENTS					
INSURED UNEMPLOYMENT (weekly average)	number	July	12,213	11.0	−17.9
INTRASTATE INITIAL CLAIMS	number	July	5,919	2.0	0.1
INTERSTATE INITIAL CLAIMS	number	July	390	26.6	35.4
UNEMPLOYMENT INSURANCE BENEFITS	thous. $	July	6,169	9.7	−1.3

p = preliminary.

Sources:
Employment, Job Count, and Unemployment Insurance—Hawaii State Department of Labor and Industrial Relations.

Neighbor Islands, it is not surprising that the changes in air travel since 1978 have affected each island and its airport facilities in a unique way. These changes bear a closer look.

Oahu

Still Hawaii's principal air traffic hub, Honolulu International Airport has seen relatively little change in passenger and cargo volumes since 1978. Overseas passenger loads in 1983 were up 15 percent over 1978, while interisland passenger loads increased just 4 percent. Over the same period, overseas air cargo increased 12 percent while interisland cargo crept up 3 percent.

The statistics for the number of aircraft operations at the airport, counting all takeoffs and landings, tell a more interesting story. From 1978 levels, total aircraft operations actually fell 12 percent by 1983 despite an increase in the number of air carrier flights. This drop in traffic occurred principally because of a 46 percent decline in general aviation uses of the airport over that period.

Hawaii

The State's first beneficiary of direct Mainland flights after deregulation, Keahole Airport in Kona has just begun to reverse years of declines in passenger loads and aircraft operations between 1978 and 1983. On the other side of the island, General Lyman Field in Hilo has been falling steadily in passenger volume from 1978 to 1983, dropping by 78 percent in overseas passengers and 18 percent in interisland passengers. Total air cargo has likewise fallen 38 percent over the same period, although aircraft operations edged up 3 percent.

The functions of Big Island airports have also changed over the years. In 1978, Keahole was dominated by general aviation traffic, which accounted for 45 percent of all takeoffs and landings. But by June of this year, general aviation's share had dropped to 25 percent, while the traffic shares of air taxi and military flights had grown substantially. The number of commercial air carrier flights increased only 1.4 percent during the period. As the direct overseas flights continue, however, the proportion of commercial usage can be expected to increase.

At General Lyman Field, air traffic in 1978 was primarily composed of commercial and general aviation flights. By June of this year, however, air carrier flights had fallen so much that general aviation and a growing military aircraft sector had become the new dominant users of General Lyman Field.

Interestingly, the pattern of overseas travel through the Big Island seems also to have changed. In 1978, General Lyman Field was the Big Island's only overseas travel facility, and it tended to be used by overseas travelers as a point of departure from Hawaii rather than as a point of entry. With the opening of Keahole to direct Mainland flights, overseas travelers now tend to use Keahole as a Big Island gateway into the state. A pattern exists in the Big Island's interisland travel market as well, with people tending to arrive

public assistance in hawaii

Series	Unit	Period	Number	Percent Change from preceding period	Percent Change year ago
PUBLIC ASSISTANCE					
RECIPIENTS[1]					
Income Maintenance	no./persons	July	60,947	−0.6	−4.5
Services	no./cases	2nd Qtr.	7,029	1.5	8.0
Medical	no./patients	July	46,384	−9.2	−7.3
Food Stamps	no./persons	June	98,982	1.0	−1.3
PAYMENTS					
Income Maintenance	thous. $	July	8,388	−0.5	−5.9
Services	thous. $	2nd Qtr.	2,883	−23.8	−23.5
Medical	thous. $	July	12,530	−17.1	−0.6
Food Stamps	thous. $	June	6,528	0.6	−0.1

[1]Count of recipients is duplicated. A person may be counted in each category.

Sources:
Public Assistance—Hawaii State Department of Social Services and Housing.

banking and finance in hawaii

FINANCE					
COMMERCIAL BANKS					
Total Deposits					
STATE	mil. $	July	6,343	−0.7	12.6
Honolulu County	mil. $	July	5,261	−0.4	12.6
Maui County	mil. $	July	407	−1.8	16.5
Hawaii County	mil. $	July	457	−0.6	13.5
Kauai County	mil. $	July	217	−5.2	4.1
Debits to Demand Deposits					
STATE	mil. $	July	7,973	0.4	15.6
Honolulu County	mil. $	July	7,321	0.3	15.5
Maui County	mil. $	July	273	0.9	25.1
Hawaii County	mil. $	July	268	0.1	17.9
Kauai County	mil. $	July	111	6.0	−3.6
Loans Outstanding—Total	mil. $	2nd Qtr., 1984	4,017	3.9	n.a.
Real estate	mil. $	2nd Qtr., 1984	1,662	1.1	0.8
Consumer	mil. $	2nd Qtr., 1984	902	6.1	13.3
Commercial & Industrial	mil. $	2nd Qtr., 1984	1,111	4.3	0.6
Other	mil. $	2nd Qtr., 1984	342	11.8	n.a.
SAVINGS & LOAN ASSOCIATIONS[1]					
Total Deposits	mil. $	June	3,805	0.4	7.1
Loans	mil. $	June	51	−26.0	14.1
Residential	mil. $	June	29	33.1	13.1
Other	mil. $	June	22	−53.2	15.5
STATE TAX COLLECTIONS[3]					
TAX COLLECTIONS—STATE	thous. $	Jan.-July	803,469	.....	13.3
Honolulu County	thous. $	Jan.-July	703,633	.....	13.5
Maui County	thous. $	Jan.-July	42,727	.....	9.3
Hawaii County	thous. $	Jan.-July	41,642	.....	17.9
Kauai County	thous. $	Jan.-July	15,468	.....	1.1

na = not available due to changes in reporting forms.
[1]*Includes data for both Hawaii and Guam.*
[3]*Excludes property taxes which were formerly collected by the State but are now collected by the Counties.*

Sources:
Finance—Hawaii State Department of Commerce and Consumer Affairs. Federal Deposit Insurance Corporation reports. Federal Home Loan Bank of Seattle.
State Tax Collections—Hawaii State Department of Taxation.

in the island via Hilo and exiting through Kona.

Maui

Like Keahole, Kahului Airport has also experienced increasing passenger loads and aircraft operations. In the interisland market, Kahului's resurgent interisland passenger loads have begun to eclipse the levels of 1978. In the overseas market, Kahului's 1983 passenger tally of 321,000, which is more than that year's overseas passenger count for all of the Big Island, was enough to boost Kahului's total passenger volume 10 percent above 1978 levels. The growth in passenger volume has resulted in frequent congestion at Kahului. A new and bigger airport facility is planned, but latest projections put its completion at least four years away.

The mix of air traffic at Kahului has also undergone dramatic shifts. Compared to 1978, air carrier operations are now 36 percent higher as a proportion of all traffic, while general aviation's share of traffic has diminished by a comparable percentage. This means that Kahului has changed from an airport almost equally used by commercial air carriers, air taxis, and general aviation into a facility clearly dominated by commercial airline operations.

For many years, there has been talk of a new airfield at West Maui, with Mahinahina most recently named as the prospective site. However, previous development efforts have met with considerable community opposition. In the current initiative, Hawaiian Airlines and Maui Land & Pineapple Company have agreed to develop the Mahinahina site into a private airfield, which would operate during the daylight hours only and be open to all carriers meeting short takeoff and low noise requirements. Once all of the necessary permits are obtained, completion of the long-sought West Maui airfield could take about a year.

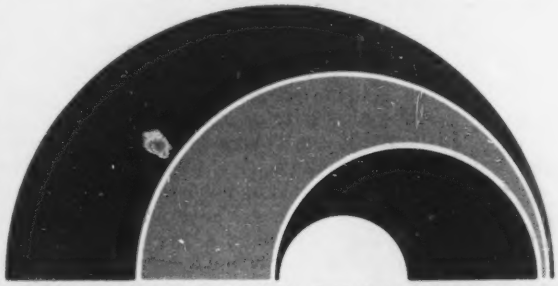
Kauai

Hawaii's latest airport to receive direct Mainland flights, Lihue Airport experienced a 23 percent drop in passenger volume from 1978 to 1983, and a 4 percent drop in aircraft operations. In air cargo, loads carried interisland rose from 9,418 tons in 1978 to 12,860 tons in 1980, but fell to 11,331 tons in 1983.

As is true with the other airports in the state, Lihue's mix of aircraft operations has also undergone interesting changes. Since 1978, the proportion of traffic represented by general aviation has fallen 56 percent, and the proportion in commercial airline flights is also down 40 percent. The big gainer amidst these declines is air taxi operations, which have jumped 80 percent since 1978, from a 37 percent share to a 67 percent share. Clearly, air taxis have become the dominant user of Lihue Airport. However, with a $39 million Lihue Airport expansion underway and new direct flights starting into Lihue, the proportion of commercial airline flights can be expected to increase. The new airport, which will be three times the size of the old facility, is slated to open in fall of 1985.

ECONOMIC INDICATORS

A Bimonthly Report on Current Economic Conditions in Hawaii
by the Research Department, First Hawaiian Bank



FIRST HAWAIIAN BANK

P.O. BOX 3200
HONOLULU, HAWAII
96847

Prospects for an Inter-Island Power Cable

Since 1981, the Hawaii Deep Water Electrical Transmission Cable Demonstration (HDWC) Program has been studying a project which could alleviate Hawaii's expensive dependence on imported fuel oil for electricity. In this project, an inter-island power cable would link the anticipated abundant renewable energy resources of the Big Island with the high energy demands of Oahu, where 80 percent of the state's electricity is consumed.

In its recently issued report, the HDWC Program examined the legal, organizational, and financial issues involved in obtaining the necessary federal, state, and county permits, managing the huge project from development to installation and operation, and securing the over $400 million needed to finance the project.

At over 170 miles in length, the proposed inter-island power cable would be the longest in the world, longer than the current record 130 mile cable linking Norway and Denmark. The Hawaii cable would also be the deepest ever laid, traversing the 7,000 foot depths of the Alenuihaha Channel between the Big Island and Maui. Nine possible routes for the cable were examined in the report, with one route connecting electricity users on Maui and Molokai with the new energy grid. If selected, this route would provide Maui and Molokai consumers relief from the high electricity rates they presently pay.

One complicating factor is the necessity that the cable system proceed hand in hand with the development of alternative energy on the Big Island, in particular, the geothermal resources in Puna. Given the enormous financing demands of both the cable and any major alternative energy producing source, both the energy production and transmission facilities must be utilized at full capacity as soon as possible in order to generate maximum revenues. Therefore, besides being a giant undertaking in itself, an inter-island power cable would also involve the coordinated development of what in effect would be an inter-island energy grid spanning at least two islands and over 170 miles of deep ocean. In linking the islands, the cable would provide the foundation for future economic development, not only of the neighbor islands, but also of the state as a whole. In short, an inter-island energy grid, of which the cable would be a central part, would be a powerful force drawing the various islands into an integrated economic system.

However, prior to implementation, the proposed cable system would be subject to a host of laws and regulations at various levels of government. At the international level, it appears that the cable would comply with the provisions of the 1982 United Nations Convention on the Law of the Sea, although the United States has yet to acknowledge the terms of the treaty. At the federal level, various environmental laws and regulations would apply, while the State of Hawaii and the respective counties would add further legal requirements that the cable project must satisfy.

The type of organization required to manage the cable project was another area of exploration. Whether a public or private entity, a joint venture among private or public corporations, or a limited partnership, the cable agency would be subject to regulation by the Hawaii Public Utilities Commission. The form of ownership of the cable system is also open to many possibilities, including public or private ownership, or joint-venture ownership among private or public corporations. The entity owning the system could also be different from the entity operating the system.

Ten alternative institutional arrangements were compared by the HDWC Program in terms of their ease of establishment and operation, regulatory burden, and governmental permit requirements. In general, it was found that private arrangements could be more easily established and operated, while public arrangements would enjoy more favorable treatment in the permitting process.

Finally, three financing approaches were examined: self-supported financing based solely on projected-generated revenues, credit-supported financing involving obligations to investors, and a combined approach mixing both credit and investment financing. The combined approach was deemed most appropriate for a cable project. Potential sources of capital include State general-obligation bonds, tax-exempt revenue bonds including special-purpose industrial-development bonds, private lease financing, private limited-partnership equity, and corporate-equity joint-venture arrangements.

The report concluded with five major recommendations: (1) several detailed scenarios should be developed to flesh out the options for cable development, construction, financing, operation, and regulation; (2) a plan should be formulated to coordinate the development of a cable system and the Big Island's renewable energy resources; (3) an analysis should be made to determine the appropriate price for electricity carried by the cable system; (4) a fast-track governmental permitting process should be developed to expedite the project; and (5) a comprehensive analysis should be made of any federal, state, or county legislation needed to develop, construct, finance, or operate the cable system.